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Remarks/Arguments

Claims 1, 2, 6 - 11, 14 - 37 currently stand in the application. No amendments have been made to the claims in response to the Final Action. However, Applicant has included a clean listing of the claims as previously amended in our response of February 10, 2004 for the benefit of the Examiner.

The independent claims of the present invention recite a method (claim 1) and system (claim 10) for establishing a communication path in a data-driven communication system.

The system requires a first layer agent operable to receive data related to a communication; a second layer agent linked to the first layer agent by a first set of predetermined policies such that a first policy chain can be established therebetween, in accordance with the data related to the communication, thereby linking the first layer agent to the second layer agent; and a third layer agent linked to the second layer agent by a second set of predetermined policies such that a second policy chain can be established therebetween, in accordance with data received from the second layer agent, thereby linking the second layer agent to the third layer agent and establishing a data-driven communication path between the first layer agent and the third layer agent.

Similarly, the method requires steps of defining a first layer agent, a first set of predetermined policies for linking the first layer agent to a second layer agent, and a second set of predetermined policies for linking the second layer agent to a third layer agent; receiving, at the first layer agent, data related to a communication; invoking a first policy of the first set of predetermined policies in accordance with the data related to the communication; establishing a first policy chain through the first set of predetermined policies linking the first layer agent and the second layer agent; invoking a policy of the second set of predetermined policies in accordance with data received from the second layer agent; and establishing a second policy chain through the second set of predetermined policies linking the second layer agent and the third layer agent, the first and second policy chains determining a communication path between the first layer agent and the third layer agent.

The present invention provides a communications architecture that permits data driven communication. The path between any two agent layers, and between respective agents in each layer, is determined by selecting a path through a set of predetermined policies. In accordance with §608.01(c) MPEP, a term used in the claims may be given a special meaning in the description, provided that the meaning is not

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repugnant to the usual meaning of the term. Applicant submits that the terms "agent" and "policy" are both clearly defined in the description as software entities.

As described at p. 5, lines 21 - 26, both the agents and the policies of the present invention are implemented in software. The term "agent", in the context of software driven systems and methods, is also a commonly understood term of art meaning a program that performs some information gathering or processing task in the background(see e.g. Webopedia, Online Dictionary and Search Engine for Computer and Internet Technology Definitions; www.pcwebopedia.com). Typically, an agent is given a very small and well-defined task. As used in the present application each agent typically represents a real-world counterpart, such as a switching node, a device or a destination.

The term "policy", as defined throughout the present application and specifically at p. 5, lines 22 - 26, refers to a software construct or object that defines relationships between agents. The policies chosen to establish a link between particular agents determine the appropriate agents in each layer, the attributes or relationships between the agents, and their intercommunication. As recited in the claims, a policy chain is established between first and second (or second and third) layer agents, thereby linking the agents. The system is data-driven in the sense that data associated with a communication or call determines policies and hence the communication path for the communication.

An advantage of the claimed system and method is that it permits the creation of any desired routing, handling, or advanced features in the communication system by simply creating new policies and/or agents, and associating them as desired. Since the agents and policies are simple software constructs, such as objects, they operate across networks to establish a communication path and to define its characteristics. The agents and policies are not restricted to operation within a network element, such as a switch. If a new agent is created, it can be easily added to any existing layer, or a new layer can be created to accommodate the new agent. Similarly, a new policy can be associated with any agent or layer. New agents and policies can be deployed by simple association with existing agents, existing policies and/or existing layers, and, once deployed, can be invoked in accordance with the data related to a particular communication.

The Examiner has rejected claims 1 and 2 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,002,760 to Gisby in view of U.S. Patent No. 6,400,687 to Davison et al. The Examiner has rejected claims 10 - 11, 14 - 26 and 33 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No.

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6,381,640 to Beck et al. in view of Davision. The Examiner has rejected claims 27 - 32 and 34 - 37 under 35 U.S.C. 103(a) as being unpatentable over Beck in view of Davison, and further in view of U.S. Patent No. 5,946,464 to Kito et al. Applicant respectfully traverses the rejections for the following reasons.

Gisby discloses a call-center telephony system that permits a call to be virtually queued, and the caller to be called back when a call-center agent is free. A customer call is answered at the call center and data related to the call, such as the caller's phone number, is stored in a database. The caller can then hang up and will be notified when a call center agent is free. The first, second and third layer agents noted by the Examiner are, in fact, physical entities including an actual person (the agent), not agents implemented in software, as described and claimed in the present application.

Beck discloses an automated system for presenting personalized workload assignments to an agent in a call center. It is clear throughout the disclosure that the "agents" referred to by Beck are actual people (see e.g. col. 1, line 49; col. 4, line 1 - col. 5, line 19; col. 7, lines 41 - 49; col. 10, lines 17 - 28), not software constructs, as described and claimed in the present application.

Thus, Applicant submits that neither Gisby or Beck teaches or suggests first, second and third layer agents, as described and claimed in the present application. Therefore, there can be no suggestion or motivation to combine Gisby or Beck with any other piece of prior art to arrive at the invention claimed in the present application.

For the purposes of completeness, however, Applicant will address each of the other references cited by the Examiner.

Davision describes a system for bandwidth management in an ATM network. Contrary to the Examiner's assertion, Davison does not teach establishing a policy chain between agents. The rules of Davison merely check a condition (i.e. congestion, bandwidth requirements, etc.) and invoke an agent if assistance is required to solve a detected problem. The rule does not form part of any chain of policies. Nor does its invocation result in a communication path being established between a first layer agent and a third layer agent.

Kito describes a networked groupware system for providing scheduling, messaging, document management and workflow management. Agent clients are provided to create agents in response to input

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from a user, and are triggered in response to a condition provided by the user. These agents perform such functions as opening a user's inbox at a certain time of day and deleting all mail that has already been viewed. There is no policy chain established between agents in Kito in response to any call, nor is there any suggestion in Kito that a communication path is established for any reason between agents.

Thus, Applicant submits that none of Gisby, Beck, Davison or Kito, either alone or in combination, teach or suggest the system or method claimed in claims 1 or 10 of the present application, or in their dependent claims 2, 6 - 9, 11 and 14 - 37. Withdrawal of the rejections under 35 U.S.C. 103(a) is, therefore, requested.

No fee is believed due for this submission. However, Applicant authorizes the Commissioner to debit any required fee from Deposit Account No. 501593. The Commissioner is further authorized to debit an additional amount required, and to credit any overpayment to the above noted deposit account.

It is submitted that this application is now in condition for allowance, and action to that end is respectfully requested.

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